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PATENT  
Atty. Docket No. SNS-006CP1  
(7268/10)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**APPLICANTS:** Shih et al.

**SERIAL NO.:** 09/347,637                   **GROUP NO.:** 2671

**FILING DATE:** July 6, 1999                   **EXAMINER:** E. L. Santiago

**TITLE:** SYSTEMS AND METHODS FOR SCULPTING VIRTUAL  
OBJECTS IN A HAPTIC VIRTUAL REALITY  
ENVIRONMENT

Commissioner for Patents  
Washington, D.C. 20231

**COMMENT ON STATEMENT OF REASONS FOR ALLOWANCE**

The Notice of Allowance for the above-identified application was mailed from the U.S. Patent Office on November 5, 2002, and the issue fee is due on February 5, 2003. This Comment is hereby submitted concurrently with payment of the issue fee in this case, as recommended on Page 2 of the Detailed Action mailed on November 5, 2002.

Applicants wish to comment on the characterization of U.S. Patent No. 6,191,796 (Tarr) in the Detailed Action. The Action states, "The closest prior art, Tarr US patent no. 6,191,796, teaches a method for modifying a virtual *object* in a haptic virtual environment, comprising..." [emphasis added]. As Applicants stated on pages 7 and 8 of Applicants' Amendment and Response, originally filed August 5, 2002 (and filed again on September 3, 2002, with a Request for Continued Examination), Tarr discloses "[a] method for haptically deforming a virtual *surface* within a haptic virtual environment

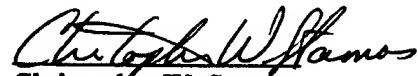
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... to plastically deform the virtual surface of a virtual object" [emphasis added] [Tarr, Abstract]. Applicants respectfully submit that Tarr does not expressly disclose a method for modifying a voxel-based virtual *object*, for example, by adding material to or subtracting material from a virtual object. Rather Tarr discloses a method for deforming a virtual *surface*.

Respectfully submitted,

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